

RSX-11M-PLUS

Information Directory and Master Index

Order No. AA-H426C-TC

READ THIS FIRST

RSX-11M-PLUS Version 2.1

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CONTENTS

	Page
PREFACE	v
1.0 GETTING STARTED	1
2.0 HOW THE MANUALS ARE ORGANIZED	1
3.0 INTENDED READING AUDIENCES FOR RSX-11M-PLUS MANUALS	3
4.0 RSX-11M-PLUS DOCUMENTATION DESCRIPTIONS	6
4.1 Volume 1: Introduction	6
4.1.1 RSX-11M-PLUS Software Product Description	6
4.1.2 RSX-11M-PLUS Information Directory and Master Index	6
4.1.3 RSX-11M-PLUS/RMS-11 Release Notes	6
4.1.4 Introduction to RSX-11M and RSX-11M-PLUS	7
4.2 Volume 2: Operation	7
4.2.1 RSX-11M-PLUS System Generation and Installation Guide	7
4.2.2 RSX-11M/M-PLUS MCR Operations Manual	7
4.2.3 RSX-11M/M-PLUS MCR Operations Manual Update Notice No. 1	7
4.2.4 RSX-11M/M-PLUS Command Language Manual	7
4.2.5 RSX-11M/M-PLUS Batch and Queue Operations Manual	8
4.3 Volume 3: Utilities	8
4.3.1 RSX-11M/M-PLUS Utilities Manual	8
4.3.2 RSX-11M/M-PLUS Utilities Manual Update Notice No. 1	9
4.3.3 EDT Editor Manual	9
4.4 Volume 4: Program Development	9
4.4.1 RSX-11M/M-PLUS Guide to Program Development	9
4.4.2 PDP-11 MACRO-11 Language Reference Manual	9
4.4.3 IAS/RSX-11 I/O Operations Reference Manual	10
4.4.4 IAS/RSX-11 System Library Routines Reference Manual	10
4.4.5 IAS/RSX-11 ODT Reference Manual	10
4.4.6 RSX-11M/M-PLUS Task Builder Manual	10
4.4.7 RSX-11M/M-PLUS Executive Reference Manual	11
4.5 Volume 5: I/O Drivers Development and Reference	11
4.5.1 RSX-11M-PLUS Guide to Writing an I/O Driver	11
4.5.2 RSX-11M/M-PLUS I/O Drivers Reference Manual	11
4.5.3 RSX-11M/M-PLUS I/O Drivers Reference Manual Update Notice No. 1	11
4.6 Volume 6: System Management and Maintenance	12
4.6.1 RSX-11M/M-PLUS System Management Guide	12
4.6.2 RSX-11M/M-PLUS System Management Guide Update Notice No. 1	12
4.6.3 RSX-11M/M-PLUS Error Logging Manual	13
4.6.4 RSX-11M/M-PLUS Crash Dump Analyzer Reference Manual	13
4.7 Volume 7: PDP-11 Record Management Services	13
4.7.1 RSX-11M/M-PLUS RMS-11: an Introduction	13
4.7.2 RSX-11M/M-PLUS RMS-11 User's Guide	13
4.7.3 RSX-11M/M-PLUS RMS-11 Utilities	14

4.7.4	RSX-11M/M-PLUS RMS-11 Macro Programmer's Guide	14
4.8	RSX-11M-PLUS Mini-Reference	15
4.9	EDT Editor Reference Card	15
4.10	PDP-11 Programming Card	15
5.0	RSX-11S DOCUMENTATION	15
6.0	INTRODUCTION TO THE MASTER INDEX	16
6.1	Format of the Master Index	16
6.2	Manuals Included in the Master Index	16

MASTER INDEX

FIGURES

FIGURE 1	Suggested Sequence for Reading RSX-11M-PLUS Manuals	2
----------	-----------------------------------------------------	---

TABLES

TABLE 1	RSX-11M-PLUS Documentation Set	3
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PREFACE

MANUAL OBJECTIVES

The RSX-11M-PLUS Information Directory and Master Index introduces the RSX-11M-PLUS documentation set. It includes an overview of all the RSX-11M-PLUS manuals and a Master Index that will be useful for referring to topics throughout the documentation. The descriptions of the manuals are intentionally brief; refer to the prefaces of individual manuals for additional information. Read the Information Directory before you read other manuals in the documentation set or use the system.

INTENDED AUDIENCE

The RSX-11M-PLUS Information Directory and Master Index is intended for all users of the RSX-11M-PLUS operating system. No previous knowledge of the system is required.

STRUCTURE OF THIS DOCUMENT

The first part of the manual briefly describes the documents in the set. It tells which kinds of users are likely to be interested in which documents, and suggests a sequence for reading them. The second part of the manual is a Master Index to all the documents.

ASSOCIATED DOCUMENTS

The next manual you should read in this documentation set is the RSX-11M-PLUS/RMS-11 Release Notes, which will give you important information on the RSX-11M-PLUS software and documentation.

1.0 GETTING STARTED

Your kit contains an RSX-11M-PLUS baseline system that is ready to run on your PDP-11 processor. You will use this baseline system to generate an RSX-11M-PLUS system, tailored to your own particular hardware and software requirements.

Before beginning system generation, you should become familiar with your RSX-11M-PLUS hardware configuration and with this documentation set, and you should thoroughly read the RSX-11M-PLUS/RMS-11 Release Notes and the RSX-11M-PLUS System Generation and Installation Guide. Then you will be prepared to choose among the options offered during system generation.

Figure 1 outlines a suggested sequence for reading the manuals in your documentation set. The sequence is from introductory and more general manuals to advanced manuals that assume a greater understanding of the system.

2.0 HOW THE MANUALS ARE ORGANIZED

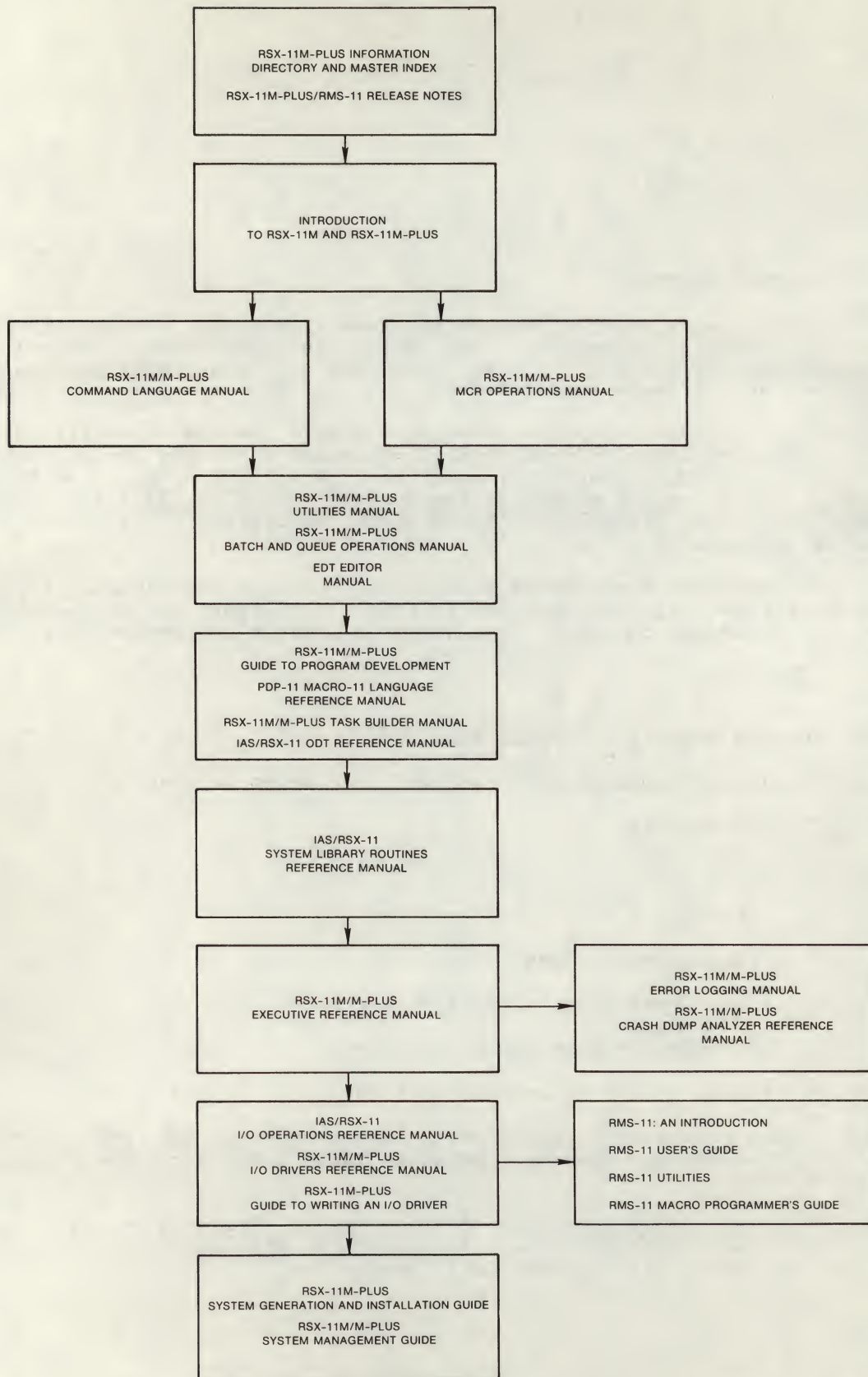
The RSX-11M-PLUS manuals are organized into seven volumes:

1. Introduction
2. Operation
3. Utilities
4. Program Development
5. I/O Drivers Development and Reference
6. System Management and Maintenance
7. PDP-11 Record Management Services

Each volume consists of one or more ring binders, and each binder contains two or more manuals. Refer to Table 1 for a complete list of the manuals.

The EDT Editor Reference Card and the PDP-11 Programming Card are packaged separately; the RSX-11M-PLUS Mini-Reference is also separate, coming with its own small binder.

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX



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Figure 1 Suggested Sequence for Reading RSX-11M-PLUS Manuals

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

3.0 INTENDED READING AUDIENCES FOR RSX-11M-PLUS MANUALS

Table 1 lists the intended reading audience for each document in your set. The audience is divided into the loosely defined groups listed as follows (and indicated in Table 1 by an X in one or more of the columns):

- US The user: anyone who types at a terminal on an RSX-11M-PLUS operating system.
- AP The applications programmer: anyone who uses the MACRO-11 assembly language or a high-level language to develop programs for user applications.
- SP The system programmer: anyone who uses MACRO-11 to maintain, modify, and develop software used by the applications programmer or the user.
- SM The system manager: the person familiar with and responsible for overall operation of an RSX-11M-PLUS system and its associated hardware.

Table 1
RSX-11M-PLUS Documentation Set
Kit Number QR500-GZ

Volume	Title and Order Number	Suggested Audience			
		US	AP	SP	SM
-	Handy Reference Materials				
	RSX-11M-PLUS Mini-Reference AV-H435C-TC	X	X	X	X
	EDT Editor Reference Card AV-J756A-TC	X	X	X	X
	PDP-11 Programming Card EH-S1046-78		X	X	X
1	Introduction				
	RSX-11M-PLUS Software Product Description AE-H862I-TC	X	X	X	X
	RSX-11M-PLUS Information Directory and Master Index AA-H426C-TC	X	X	X	X
	RSX-11M-PLUS/RMS-11 Release Notes AA-H427C-TC	X	X	X	X
	Introduction to RSX-11M and RSX-11M-PLUS AA-L763A-TC	X	X	X	X

(continued on next page)

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

Table 1 (Cont.)
RSX-11M-PLUS Documentation Set
Kit Number QR500-GZ

Volume	Title and Order Number	Suggested Audience			
		US	AP	SP	SM
2	Operation				
	RSX-11M-PLUS System Generation and Installation Guide AA-H431C-TC			X	X
	RSX-11M/M-PLUS MCR Operations Manual AA-L678A-TC	X	X	X	X
	RSX-11M/M-PLUS MCR Operations Manual Update Notice Number 1 AD-L678A-T1				
	RSX-11M/M-PLUS Command Language Manual AA-L672B-TC	X	X	X	X
	RSX-11M/M-PLUS Batch and Queue Operations Manual AA-L671A-TC	X	X	X	X
3	Utilities				
	RSX-11M/M-PLUS Utilities Manual AA-L681A-TC	X	X	X	X
	RSX-11M/M-PLUS Utilities Manual Update Notice Number 1 AD-L681A-T1				
	EDT Editor Manual AA-J726A-TC	X	X	X	X
4	Program Development				
	RSX-11M/M-PLUS Guide to Program Development AA-L676A-TC		X	X	X
	PDP-11 MACRO-11 Language Reference Manual AA-V027A-TC		X	X	X
	IAS/RSX-11 I/O Operations Reference Manual AA-M176A-TC		X	X	
	IAS/RSX-11 System Library Routines Reference Manual AA-5580B-TC		X	X	

(continued on next page)

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

Table 1 (Cont.)
RSX-11M-PLUS Documentation Set
Kit Number QR500-GZ

Volume	Title and Order Number	Suggested Audience			
		US	AP	SP	SM
	IAS/RSX-11 ODT Reference Manual AA-M507A-TC		X	X	X
	RSX-11M/M-PLUS Task Builder Manual AA-L680B-TC		X	X	X
	RSX-11M/M-PLUS Executive Reference Manual AA-L675A-TC		X	X	
5	I/O Drivers Development and Reference RSX-11M-PLUS Guide to Writing an I/O Driver AA-H267B-TC RSX-11M/M-PLUS I/O Drivers Reference Manual AA-L677A-TC RSX-11M/M-PLUS I/O Drivers Reference Manual Update Notice Number 1 AD-L677A-T1			X X	
6	System Management and Maintenance RSX-11M/M-PLUS System Management Guide AA-L679B-TC RSX-11M/M-PLUS System Management Guide Update Notice Number 1 AD-L679B-T1 RSX-11M/M-PLUS Error Logging Manual AA-L674B-TC RSX-11M/M-PLUS Crash Dump Analyzer Reference Manual AA-L673B-TC			X X X	X X X
7	PDP-11 Record Management Services RSX-11M/M-PLUS RMS-11: An Introduction AA-L682A-TC	X	X	X	X

(continued on next page)

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

Table 1 (Cont.)
RSX-11M-PLUS Documentation Set
Kit Number QR500-GZ

Volume	Title and Order Number	Suggested Audience			
		US	AP	SP	SM
	RSX-11M/M-PLUS RMS-11 User's Guide AA-L669A-TC		X		X
	RSX-11M/M-PLUS RMS-11 Utilities AA-L670A-TC	X	X	X	X
	RSX-11M/M-PLUS RMS-11 Macro Programmer's Guide AA-L668A-TC		X	X	

4.0 RSX-11M-PLUS DOCUMENTATION DESCRIPTIONS

Following are brief descriptions of the volumes and the individual manuals in the RSX-11M-PLUS documentation set. For a complete description of any manual, read its Preface.

4.1 Volume 1: Introduction

This volume includes manuals that introduce the RSX-11M-PLUS documentation set and operating system.

4.1.1 RSX-11M-PLUS Software Product Description - The Software Product Description (SPD) concisely describes the functional characteristics and system environment of RSX-11M-PLUS. It identifies the required and optional hardware and software along with the available training credits and additional services. It includes information on installation requirements and software product support, and gives ordering information.

4.1.2 RSX-11M-PLUS Information Directory and Master Index - This manual orients the reader to the RSX-11M-PLUS documentation set. It includes descriptions of the manuals, a suggested sequence for reading the manuals, the intended reading audience for each, and a Master Index to the documentation set. The Master Index should prove very useful: It comprises all the topics in the individual manuals' indexes, without abridgement, and will tell you which manual(s) and page number(s) have the information you need on a topic.

4.1.3 RSX-11M-PLUS/RMS-11 Release Notes - This manual is crucial, as it summarizes the new software features for RSX-11M-PLUS Version 2.1 and RMS-11 Version 2.0. It tells you which manuals to go to for complete information on these new features. Incompatibilities between the current and previous versions of RSX-11M-PLUS are discussed; and procedures are described for applying corrections to files on the source disk and reporting any problems of the new software. Be sure to read the Release Notes before generating and using your system.

4.1.4 Introduction to RSX-11M and RSX-11M-PLUS - This tutorial manual is a simple, step-by-step introduction for new users of the RSX-11M and RSX-11M-PLUS operating systems. In an interactive terminal session, using prepared demonstration files, new users can log in and learn by practicing. The DIGITAL Command Language, the interactive text editor EDT, and the program development facilities are demonstrated. After guiding the user through the practice session, the manual discusses some general system concepts and features. It has a useful glossary that defines system terms in some detail.

4.2 Volume 2: Operation

The operation volume explains how to generate and install your RSX-11M-PLUS Version 2.1 system. It also documents the Monitor Console Routine (MCR), the DIGITAL Command Language (DCL), and batch and queue operations.

4.2.1 RSX-11M-PLUS System Generation and Installation Guide - This manual is a step-by-step guide to the system generation procedure. It includes instructions for copying the distribution kit onto the system disk and then generating an RSX-11M-PLUS system tailored to your needs.

4.2.2 RSX-11M/M-PLUS MCR Operations Manual - This manual describes the Monitor Console Routine (MCR) and the Indirect Command Processor (Indirect).

MCR is a command line interpreter, an interface for communication between you and the RSX-11M-PLUS system. This manual describes MCR commands and their formats and tells you how to use MCR. File ownership and file protection are explained. An alphabetical list of MCR and TKTN (Task Termination Notification program) messages is given in an appendix.

Indirect allows you to process files that contain Indirect, MCR, DCL, or utility commands. These commands are executed as though they had been entered from a terminal. The Indirect chapter describes the Indirect commands, symbols, and functions, and presents actual examples.

4.2.3 RSX-11M/M-PLUS MCR Operations Manual Update Notice No. 1 - This update corrects errors in the manual and documents new features and devices.

4.2.4 RSX-11M/M-PLUS Command Language Manual - You may prefer to use the DIGITAL Command Language (DCL), rather than MCR, to communicate with the RSX-11M-PLUS system. DCL provides direct, transparent access to most common MCR and utility functions. This manual is organized by system functions; it gives full descriptions of all DCL commands, with examples and notes on their usage.

4.2.5 RSX-11M/M-PLUS Batch and Queue Operations Manual - This manual explains the use of the Queue Manager (QMG) to control print and batch queue functions, and describes in detail the QMG commands that control these functions. The manual also explains the Batch Processor and describes batch commands and syntax. Error messages are explained in the appendix, and there is a glossary of terms.

4.3 Volume 3: Utilities

This volume contains two manuals, the RSX-11M/M-PLUS Utilities Manual and the EDT Editor Manual. The RSX-11M/M-PLUS Utilities Manual describes utilities that allow you to manipulate different kinds of files and their contents and perform operations on supported media. The EDT Editor Manual describes the function and operation of the interactive text editor EDT.

4.3.1 RSX-11M/M-PLUS Utilities Manual - This manual describes the functions and operations of the following RSX-11M/M-PLUS utility programs:

- EDI - Line Text Editor. EDI is a line-oriented, interactive editor used to create and maintain text and source files.
- PIP - Peripheral Interchange Program. PIP copies files and performs file control functions.
- FLX - File Transfer Utility Program. FLX is a file transfer and format conversion program that transfers files among DOS-11, RT-11, and Files-11 volumes.
- FMT - Disk Volume Formatter Utility. FMT formats and verifies several types of Files-11 disks.
- BAD - Bad Block Locator Utility. BAD determines the number and location of bad blocks on a volume.
- BRU - Backup and Restore Utility. Backing up files both compresses the files and safeguards them against loss. BRU backs up files from a Files-11 volume to one or more backup volumes, and retrieves them as needed.
- DSC - Disk Save and Compress Utility Program. DSC copies Files-11 disk files to tape or disk, and from DSC-created tape back to disk. (DSC's functions are largely similar to BRU's.)
- VFY - File Structure Verification Utility. VFY verifies the consistency and validity of the file structure on a Files-11 volume.
- LBR - Librarian Utility Program. LBR is a library maintenance program that creates and modifies library files.
- DMP - File Dump Utility Program. DMP is a file listing program that allows you to examine the contents of a single file or a volume of files.
- CMP - File Compare Utility. CMP compares two text files, record by record, and lists the differences between them.

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

- SLP - Source Language Input Program. SLP is a noninteractive editing program that is used to maintain and edit source files.
- PAT - Object Module Patch Utility. PAT updates, or patches, relocatable binary object modules.
- ZAP - Task/File Patch Program. ZAP is a patch utility that examines and directly modifies locations in a task image file or data file.

For each utility in turn, this manual explains the utility's use, describes its commands and switches, and gives detailed command formats and syntax rules.

4.3.2 RSX-11M/M-PLUS Utilities Manual Update Notice No. 1 - This update concerns two utilities, BRU and ZAP. It documents BRU's new multivolume disk operations, lists new BRU error messages, and gives new examples. For ZAP, it adds a description of the /LI switch and I- and D-space tasks and gives new examples.

4.3.3 EDT Editor Manual - This manual explains how to use the interactive text editor (EDT) to create and update ASCII text files. It explains the command line, keypad editing, line editing, nokeypad editing, and the redefining of keys. It also presents sample editing sessions.

4.4 Volume 4: Program Development

The first manual in this volume gives an overview of the program development process. The remaining manuals further explain the process by describing the MACRO-11 assembly language, I/O operations, system library routines, the On-Line Debugging Tool, the Task Builder, and the Executive.

4.4.1 RSX-11M/M-PLUS Guide to Program Development - This manual is a step-by-step guide to program development for the beginning MACRO-11 programmer. The manual describes the hardware and software necessary for program development and explains how to create, assemble, task-build, debug, and maintain MACRO-11 programs. It also introduces the use of the Librarian Utility Program (LBR) for creating and maintaining user, macro, and object libraries. A brief description of FORTRAN program development is included, to help orient the FORTRAN programmer. Examples are given for all steps in the program development process.

This guide is intended to be used together with other, more advanced manuals until you become familiar with the process; this manual can then serve as a refresher.

4.4.2 PDP-11 MACRO-11 Language Reference Manual - This manual describes how to use the MACRO-11 Assembler to code MACRO-11 programs. It includes descriptions of MACRO-11 features, directives for conditional assembly and program sectioning, and user-defined and

system macro libraries. It also documents RSX-11M-PLUS operating procedures and error messages. Before reading the MACRO-11 Language Reference Manual, you should be familiar with your PDP-11 processor and the related terminology, as presented in the PDP-11 Processor Handbook.

4.4.3 IAS/RSX-11 I/O Operations Reference Manual - This manual provides reference material on RSX-11M-PLUS File Control Services (FCS). It explains how to use FCS to create, use, and delete files under program control. You should be familiar with MACRO-11 or FORTRAN program development procedures before using FCS.

The manual also describes the following:

- The Get Command Line subroutine (GCML) - GCML provides a device-independent interface for user programs retrieving command lines from either a terminal or a disk file.
- The Command String Interpreter (CSI) - CSI parses command lines containing file specifications and switches.
- The Table-Driven Parser (TPARS) - TPARS parses command lines at two levels: a syntactical level and a semantic level. It is generated by user-generated parse tables.

Descriptions of ANSI magtape support, unlabeled tape support, and the MAG SET command are included.

4.4.4 IAS/RSX-11 System Library Routines Reference Manual - This manual describes register handling and arithmetic routines, input and output data conversion routines, output formatting routines, and dynamic memory management and virtual memory management routines. For the more experienced programmer, a list of summary procedures is included.

4.4.5 IAS/RSX-11 ODT Reference Manual - This manual describes the use of the On-Line Debugging Tool (ODT) for debugging a task. Actual ODT command sequences are given, followed by explanatory text. The manual also describes procedures for debugging supervisor-mode libraries.

Before reading this manual, you should be familiar with the MACRO-11 assembly language and the Task Builder.

4.4.6 RSX-11M/M-PLUS Task Builder Manual - This manual describes the concepts and capabilities of the RSX-11M/M-PLUS Task Builder (TKB), the linker that produces executable task images (programs that are ready to be installed and run). It contains both programmer reference and operating information, including Task Builder allocation of virtual address space, resolution of global symbols, overlaying capability, the building of shared regions, instruction- and data-space tasks, supervisor-mode libraries, multiuser tasks, and cluster libraries.

Before reading this manual, you should be familiar with the procedures described in the RSX-11M/M-PLUS MCR Operations Manual and the RSX-11M/M-PLUS Command Language Manual, and the programming concepts discussed in the RSX-11M/M-PLUS Guide to Program Development.

4.4.7 RSX-11M/M-PLUS Executive Reference Manual - This manual describes the RSX-11M/M-PLUS Executive services available for user tasks and the Executive (system) directives you need to obtain them. You must know how to develop user programs in MACRO-11 or FORTRAN to be able to use the Executive services.

4.5 Volume 5: I/O Drivers Development and Reference

This volume consists of manuals that describe the writing and the function of I/O drivers on an RSX-11M-PLUS system.

4.5.1 RSX-11M-PLUS Guide to Writing an I/O Driver - This guide is an aid in writing an I/O driver to service a peripheral device for which DIGITAL does not supply a driver. It documents changes to system data structures made to accommodate the Error Logger and alternate CLI support. Tables are included to aid you in determining the device mask word for user-written drivers, and an appendix describes the conversion of drivers from RSX-11M to RSX-11M-PLUS.

The manual assumes that you fully understand the operation of the device for which you require a driver. You must also be familiar with your PDP-11 processor, its peripheral devices, and the software supplied with the RSX-11M-PLUS system.

4.5.2 RSX-11M/M-PLUS I/O Drivers Reference Manual - This manual describes the functions of all DIGITAL-supplied I/O drivers. It provides the data needed by the experienced programmer who wants the advantages in space and time of directly interfacing with I/O drivers.

This manual describes the Files-11 Ancillary Control Processor (FllACP) and the Magtape Ancillary Control Processor (MTAACP) and documents the QIOs performed by these processors.

4.5.3 RSX-11M/M-PLUS I/O Drivers Reference Manual Update Notice No. 1 - This update corrects errors in the manual and includes the following new device support:

- Terminal driver support has been added for the DHV11 terminal interface and the LQP02 and LA50 terminals.
- Disk driver support has been added for the following new disk devices:
 - UDA50/RA81
 - UDA50/RA60
 - RC25
 - RD51
 - RX50
- Magnetic tape driver support has been added for the TU80 and TSV05.
- Line printer driver support has been added for the LN01 laser printer.

4.6 Volume 6: System Management and Maintenance

This volume consists of a set of manuals that tell you how to ensure that your system operates correctly and effectively. The manuals describe system management programs and the RSX-11M/M-PLUS Error Logging System, and explain how to use diagnostic software and how to retrieve information to determine the causes of system crashes.

4.6.1 RSX-11M/M-PLUS System Management Guide - This manual documents the following programs that the system manager can use to test, monitor, maintain, and customize an RSX-11M-PLUS operating system:

- **ACNT - Account File Maintenance Program:** You use this program to create and maintain accounts on multiuser protection systems.
- **CODRV and COT - Console Logger:** This program handles I/O to the console output device and records system messages at a terminal and/or in a log file.
- **IOX - I/O Exerciser:** This program detects and diagnoses I/O problems on tape and disk units.
- **RCT - Bad Block Replacement Control Task:** This task performs bad block handling and recovery on Mass Storage Control Protocol devices.
- **RMD - Resource Monitoring Display:** This program displays information about the tasks currently active on the system and the system's available resources.
- **SHUTUP - System shutdown task:** This task shuts down the system in an orderly fashion.
- **UETP - User Environment Test Package:** You can run this program after system generation, to verify that you have generated a working operating system, or at any other time, to validate the proper functioning of the operating system.
- **VMR - Virtual Monitor Console Routine:** VMR consists of a subset of MCR commands that you can use to alter a system image file.
- **SHF - Shuffler:** This task compresses space in system-controlled partitions when a memory allocation failure occurs.
- **CON and HRC - System configuration services:** These services allow you to reconfigure an RSX-11M-PLUS system in order to bypass faulty hardware elements and isolate the system from their effects.

The manual includes information on pool monitoring support and the PMT program; how to set up and run the Queue Manager; how to extend and alter DCL; how to write command line interpreters (CLIs); Resource Accounting; queue optimization; and Shadow Recording. The serial despooler and RSX-11M-PLUS system conventions are described in separate appendixes.

4.6.2 RSX-11M/M-PLUS System Management Guide Update Notice No. 1 - This update primarily concerns VMR. It corrects errors in the manual and documents new features and devices.

4.6.3 RSX-11M/M-PLUS Error Logging Manual - This manual explains the RSX-11M/M-PLUS Error Logging System, a combination of tasks that collect and report information about hardware-related events on an RSX-11M-PLUS system. The Error Logging System allows you to generate event reports in brief or full format, including information on the state of the system or hardware at the time the event occurred.

The manual includes chapters on:

- Using the Error Log Task (ERRLOG) and the Error Log Interface (ELI). ERRLOG gets error information from the Executive and drivers and writes the information into the Error Log File, and ELI sends user commands to ERRLOG.
- Using the Report Generator (RPT) to generate Error Log Reports from the Error Log File.
- Using the Control File Language compiler (CFL) procedures to update and modify DIGITAL-supplied control file modules, or to add error-logging support for non-DIGITAL devices.

4.6.4 RSX-11M/M-PLUS Crash Dump Analyzer Reference Manual - This manual explains how to use the Crash Dump Analyzer (CDA) to determine the causes of system crashes. It contains operating instructions, descriptions of CDA switches and error messages, examples of CDA output listings, and an explanation of how to interpret the output listings. The manual also includes system symbolic and data structure macro definitions.

4.7 Volume 7: PDP-11 Record Management Services

This volume is composed of a set of manuals that describe the Record Management Services (RMS-11). For information on where the RMS-11 files and utilities can be found on the RSX-11M-PLUS distribution kit, see the RSX-11M-PLUS System Generation and Installation Guide.

4.7.1 RSX-11M/M-PLUS RMS-11: an Introduction - This manual introduces the major concepts of RMS-11: record formats, file organizations, and record access modes. It introduces the RMS-11 operations and utility programs, and defines the key terms necessary to understand RMS-11 capabilities and functions.

The manual is intended for all users of RMS-11, including both MACRO-11 and high-level language programmers. Nonprogramming users, programming users who are new to RSX-11M/M-PLUS, and RSX-11M/M-PLUS programmers who are new to RMS-11 should find this document especially useful.

The manual does not provide reference or usage information, but should be read before the other RMS-11 documents.

4.7.2 RSX-11M/M-PLUS RMS-11 User's Guide - This manual is a guide to using RMS-11 in file and task design for application programs written in either MACRO-11 or high-level languages. It is intended for application programmers who want to achieve optimal performance either with a new application they are writing or with an existing application that no longer performs satisfactorily.

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

The manual first presents general design considerations to help users select the appropriate file organization for their applications. Then the details of file structure, design, and processing are discussed for each of the three RMS-11 file organizations: sequential, relative, and indexed. Finally, the manual describes techniques that can be used to optimize application program performance, regardless of file organization.

Note that only MACRO-11 programmers can use the full set of RMS-11 capabilities. Subsets of those capabilities are available to high-level language programmers. Programmers who are writing applications in high-level languages should consult their language documentation for details on RMS-11 support.

4.7.3 RSX-11M/M-PLUS RMS-11 Utilities - This reference manual describes the utility programs supported by RMS-11. It is intended for users such as high-level language programmers and nonprogramming users (system managers and operators, for example) who either do not require or do not have access to the full set of RMS-11 capabilities.

The RMS-11 utility programs are the following:

- **RMS-11 File Design Utility (RMSDES)** - An interactive utility for designing and creating sequential, relative, and indexed files.
- **RMS-11 Indexed File Load Utility (RMSIFL)** - Reads records from an RMS-11 file of any kind of organization and loads them into an indexed file, optimizing all indexes, both primary and alternates (if any).
- **RMS-11 File Conversion Utility (RMSCNV)** - Reads records from an RMS-11 file of any organization and loads them into another RMS-11 file of any organization. Note that RMSCNV, unlike RMSIFL, optimizes only the primary index when it loads an indexed file.
- **RMS-11 File Display Utility (RMSDSP)** - Produces a concise description of any RMS-11 file, including backup files.
- **RMS-11 File Back-Up Utility (RMSBCK)** - Transfers the contents of an RMS-11 file to another file, on another device, to preserve it should the original file be lost or damaged.
- **RMS-11 File Restoration Utility (RMSRST)** - Restores files that were backed up by RMSBCK, so that they can be accessed by user programs.

The manual also documents RMSDEF, which has been superseded by RMSDES.

4.7.4 RSX-11M/M-PLUS RMS-11 Macro Programmer's Guide - This document is a reference manual describing the macros and symbols that make up the interface between a MACRO-11 program and the RMS-11 operation routines. It is intended for both MACRO-11 programmers and for high-level language programmers who want to use the full set of RMS-11 capabilities in a MACRO-11 subprogram.

The manual presents such programming considerations as how to use RMS-11 macros and symbols in a MACRO-11 program, how to use the directory and file operations to process directories and files, and how to use the stream operations and record or block operations to process records or blocks.

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

Detailed reference information is provided on each RMS-11 operation macro, the control blocks it uses, the options that can be specified in each control block field, and the values returned in control block fields. A summary of each control block, field, value, and mask is also provided.

In addition, the manual documents the RMS-11 completion codes, fatal error codes, and assembly-time messages.

4.8 RSX-11M-PLUS Mini-Reference

This small manual is a convenient reference for all system users. It includes sections on the Monitor Console Routine (MCR), the DIGITAL Command Language (DCL), the Task Builder (TKB), the RSX-11M/M-PLUS utilities, the On-Line Debugging Tool (ODT), the Error Logging System, the Batch Processor, the Queue Manager (QMG), the I/O error codes, the directive error codes, the Executive directive summary, the RMS-11 utilities, and the RMS-11 error codes. The manual also includes Radix-50 conversion tables and the ASCII character set.

4.9 EDT Editor Reference Card

This reference card describes keypad editing for the DIGITAL VT52 and VT100 video terminals. It presents common keyboard functions and gives instructions for beginning and ending an editing session. Keypad diagrams for the VT52 and VT100 terminals are included.

4.10 PDP-11 Programming Card

This card includes programming information on the following topics:

- PDP-11 addressing modes
- Single-operand instructions
- Double-operand instructions
- Processor register addresses
- Device register addresses
- 7-bit ASCII code
- Bootstrap loader starting addresses and device vectors

5.0 RSX-11S DOCUMENTATION

The RSX-11S operating system is an optional, separately purchased product supported with the RSX-11M-PLUS system. Included with the RSX-11S software is the RSX-11S documentation set. Some of the manuals in the documentation set describe the features and capabilities of the RSX-11S operating system; others describe the host system.

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

The RSX-11S documentation set is fully described in the RSX-11M/RSX-11S Information Directory and Index. It is important that you read thoroughly the RSX-11M/RMS-11/RSX-11S Release Notes before reading the other manuals in the RSX-11S documentation set and generating your RSX-11S system.

6.0 INTRODUCTION TO THE MASTER INDEX

The Master Index is a large and comprehensive index to the entire documentation set. The indexes of the individual manuals have been compiled into the Master Index without abridgement.

The Master Index will be valuable to new users who are not sure which manual contains the information they need. It will continue to be valuable as an index to topics that are discussed (or might logically be discussed) in more than one manual.

6.1 Format of the Master Index

Each page of the Master Index has two columns. Look in the first column for your topic. When you find it, look across to the second column for the manual(s) and page number(s).

The titles of the manuals are shortened in the Master Index. For example, the long title RSX-11M/M-PLUS Batch and Queue Operations Manual is shortened to "Batch and Queue." See Section 6.2 for a list of the shortened titles.

Here is an example of the way a topic discussed in two or more manuals appears in the Master Index:

Despooler,	
definition,	Batch and Queue, Gloss-3
error message,	System Management, A-2

This entry indicates that you will find the definition for "despooler" in the RSX-11M/M-PLUS Batch and Queue Operations Manual's Glossary on page 3. In the RSX-11M/M-PLUS System Management Guide, you can find a discussion of the despooler error messages on page 2 of Appendix A.

Most Master Index entries refer to a single manual only.

6.2 Manuals Included in the Master Index

Following is a list of all the manuals included in this index. The Index Title column gives the shortened titles that appear in the Master Index, with the full manual titles listed in the Manual Title column.

Index Title	Manual Title
Batch and Queue	<u>RSX-11M/M-PLUS Batch and Queue Operations Manual</u>
Command Language	<u>RSX-11M/M-PLUS Command Language Manual</u>
Crash Dump Analyzer	<u>RSX-11M/M-PLUS Crash Dump Analyzer Reference Manual</u>

RSX-11M-PLUS INFORMATION DIRECTORY AND MASTER INDEX

Index Title	Manual Title
EDT Editor	<u>EDT Editor Manual</u>
Error Logging	<u>RSX-11M/M-PLUS Error Logging Manual</u>
Executive	<u>RSX-11M/M-PLUS Executive Reference Manual</u>
Introduction	<u>Introduction to RSX-11M and RSX-11M-PLUS</u>
I/O Drivers	<u>RSX-11M/M-PLUS I/O Drivers Reference Manual</u>
I/O Operations	<u>IAS/RSX-11 I/O Operations Reference Manual</u>
MCR Operations	<u>RSX-11M/M-PLUS MCR Operations Manual</u>
ODT	<u>IAS/RSX-11 ODT Reference Manual</u>
PDP-11 MACRO-11	<u>PDP-11 MACRO-11 Language Reference Manual</u>
Program Development	<u>RSX-11M/M-PLUS Guide to Program Development</u>
Release Notes	<u>RSX-11M-PLUS/RMS-11 Release Notes</u>
RMS-11 Introduction	<u>RSX-11M/M-PLUS RMS-11: An Introduction</u>
RMS-11 User's Guide	<u>RSX-11M/M-PLUS RMS-11 User's Guide</u>
RMS-11 Utilities	<u>RSX-11M/M-PLUS RMS-11 Utilities</u>
RMS-11 Macro Programmer	<u>RSX-11M/M-PLUS RMS-11 Macro Programmer's Guide</u>
System Generation	<u>RSX-11M-PLUS System Generation and Installation Guide</u>
System Library	<u>IAS/RSX-11 System Library Routines Reference Manual</u>
System Management	<u>RSX-11M/M-PLUS System Management Guide</u>
Task Builder	<u>RSX-11M/M-PLUS Task Builder Manual</u>
Utilities	<u>RSX-11M/M-PLUS Utilities Manual</u>
Writing I/O Driver	<u>RSX-11M-PLUS Guide to Writing an I/O Driver</u>

SYMPTOMS	TREATMENT
Fever, chills, sweats	Antipyretics, fluids
Headache, dizziness	Rest, analgesics
Nausea, vomiting	Antiemetics, small frequent meals
Cough, sore throat	Cough syrup, lozenges
Fatigue, weakness	Rest, nutrition
Loss of appetite	Encouragement, small meals
Constipation	Laxatives, fluids
Diarrhea	Fluids, bland diet
Joint pain	Analgesics, rest
Skin rash	Antihistamines, topical treatments
Weight loss	Nutritional support
Increased heart rate	Monitoring, beta-blockers if indicated
Shortness of breath	Oxygen, pulmonary evaluation
Swelling of limbs	Diuretics, elevation of limbs
Blurred vision	Rest, hydration
Dry mouth	Sips of water, saliva substitutes
Night sweats	Cooling measures, antipyretics
Loss of interest in life	Counseling, support groups
Memory lapses	Cognitive exercises, rest
Increased thirst	Fluids, electrolyte balance
Frequent urination	Fluid restriction if indicated
Easy bruising	Avoidance of trauma, medical evaluation
Hair loss	Nutritional support, gentle hair care
Dry skin	Moisturizers, hydration